655

JVC

SERVICE MANUAL

R G B SIGNAL CONVERTER

KM-V7EG/EK

SPECIFICATIONS

Power requirement	: 220 – 240 V~, 50/60 Hz
Power consumption	: 18 W
Video output	: 1 Vp-p 75 ohms, unbalanced
input	: 0.5 – 1.0 Vp-p, 75 ohms, unbalanced
Operating temperature	: 0°C – 40°C
Dimensions	: 220(W) x 231(D) x 61(H) mm
Weight	: 2.2 kg

Design and specifications subject to change without notice.

Optional cable

VC-V8961SE

AV Output Cable: 8-pin to 21-pin peri/3.5 mm mini plug for remote pause control.

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No. 86044
November 1988

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▒) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistors
   5) Barrier

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

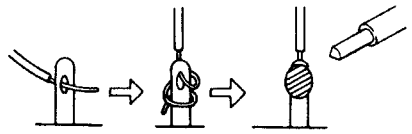


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10—15 kg of force in any direction will not loosen it.

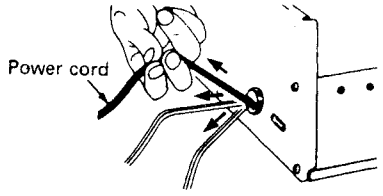


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).

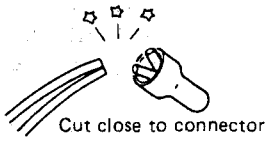


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

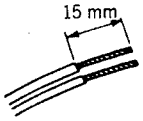


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

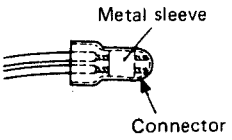


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

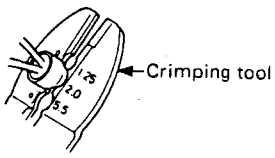


Fig. 6

(5) Check the four points noted in Fig. 7.

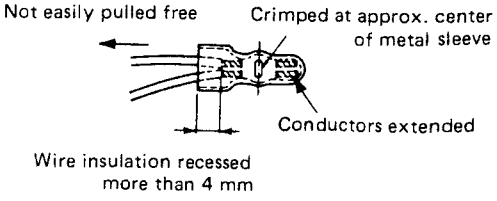

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. **Insulation resistance test**
   Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. **Dielectric strength test**
   Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. **Clearance distance**
   When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

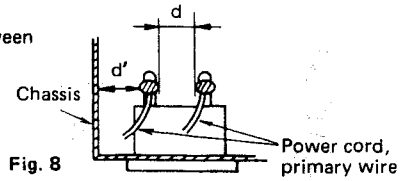


Fig. 8

4. **Leakage current test**
   Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
   Measuring Method: (Power ON)
   Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

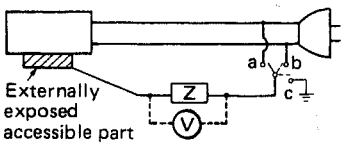


Fig. 9

5. **Grounding (Class I model only)**
   Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
   Measuring Method:
   Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

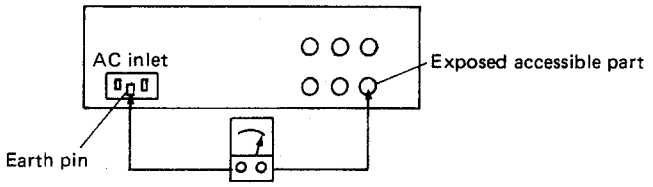


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 minute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	—	AC 900 V 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ /500 V DC	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

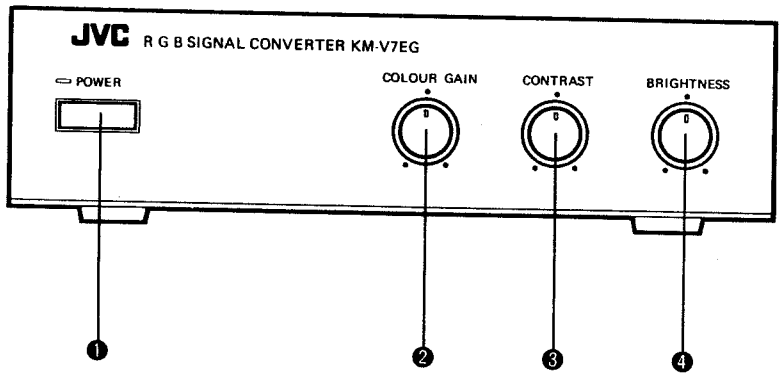
Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

INSTRUCTIONS

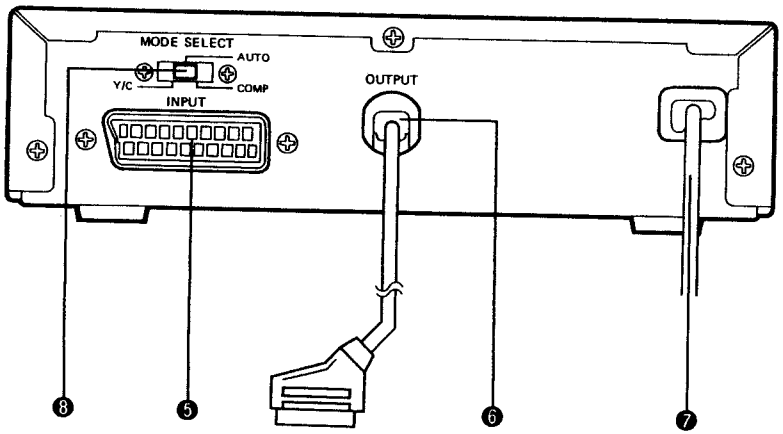
Front view
Vue avant
Vorderseite

Vista frontal
Vooraanzicht
Framsida



Rear view
Vue arrière
Rückseite

Vista posterior
Achteraanzicht
Baksida



SAFETY PRECAUTIONS

ENGLISH

The rating plate and the safety caution are on the bottom of the unit.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

WARNING—DANGEROUS VOLTAGE INSIDE

CAUTION:
To prevent shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified personnel.

CAUTION
- When you are not using the KM-V7EG for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.

IMPORTANT (In the United Kingdom)
Mains Supply (240 V~, 50 Hz only)

IMPORTANT

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with the following code:

If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt – consult a competent electrician.

PRECAUTIONS

For safety, strictly observe the following instructions.
- Do not open the cabinet.
- Prevent inflammables, water and metallic objects from entering the unit.
- Do not use the unit when there is lightning in the vicinity. Disconnect the power cable of connected equipment.

Avoid using the unit under the following conditions:
- Places subject to excessive humidity or dust.
- Near appliances generating strong magnetic or electric fields (speakers, broadcasting antennas, etc.).
- Places subject to excessive shock or vibration.
- Near a television set (rolling pictures or howling might result).
- Do not leave the unit in places of over 50°C.
- Do not use the unit in places of over 40°C.
- Do not use the unit in places of below 0°C.
- Protect the unit from excessively dry or excessively humid conditions (below 35 % or above 80 % humidity)
- For long storage, select a place between -10°C and 30°C.

Take special care for protection of the unit.
- Do not allow the unit to become wet.
- Do not leave the unit in closed cars on hot summer days.
- Take special care not to drop the unit or strike it against hard objects. Protect from shocks during transportation.

CONNECTORS AND CONTROLS

❶ POWER button with LED indicator
Press this button to turn on power. The indicator will light. Press again to turn off power.

❷ COLOUR GAIN
Adjust depth of colour with this control. Adjust to your favourite colour depth.

❸ CONTRAST
Adjust contrast (difference between strong and light) with this control.
Proper contrast is necessary for a good picture.

❹ BRIGHTNESS
Adjust brightness of the picture with this control.

❺ A/V INPUT Connector (Peri-connector)
A 21-pin audio/S-VHS video input socket for connection to an S-VHS video recorder or video-movie.

❻ A/V OUTPUT cable
A 21-pin standardised (Peri) audio/video output plug for connection to an RGB (AV) television equipped with the same type of socket.

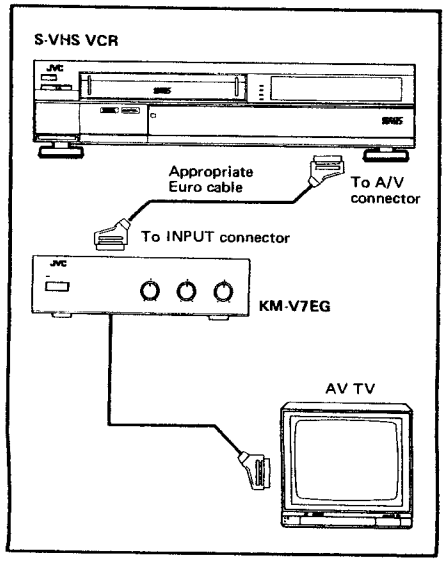
❼ AC power cord

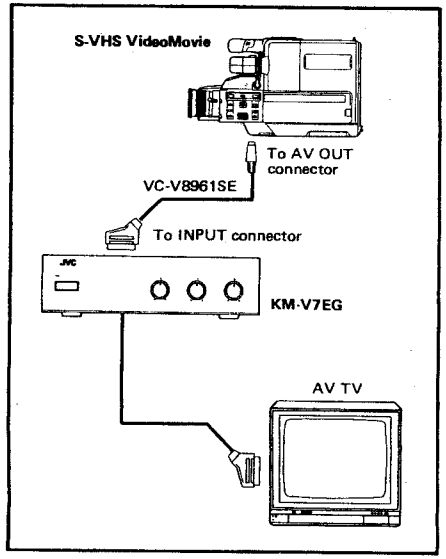
❽ MODE SELECT switch
AUTO: Normally set to this position. The input signal mode is automatically detected, and the separate Y/C signal is output after being converted into an RGB signal, while the composite video signal is directly output.
Y/C or COMPOSITE: Automatic mode detection does not take place properly with black-and-white signals. In this case, set the switch to either Y/C or COMPOSITE depending on the mode of the signal to be input to this unit. (JVC S-VHS VCRs have a switch to select the signal to be output from their 21-pin AV connector.)
The audio signal is always output as it is, even when the unit is not powered.

ENGLISH

CONNECTION

1. Connect the INPUT connector of this unit to the S-VHS VCR's Peri (AV) output connector using a Euro cable.
2. Connect the Peri-plug of this unit to the RGB (AV) television's connector.





OPERATION

ENGLISH

1. Turn on the power of this unit, VCR and AV television.
2. Set the VCR's VIDEO OUT switch to Y/C.
3. Select the AV television's terminal.
   - For details, refer to the instructions for the television.
4. Press the PLAY button of the VCR.

Note:
Displayed pictures will be distorted for 10 seconds or a little longer after the power is turned on.

Note:
- With some AV televisions there may be differences in colour and brightness between the RGB and composite video inputs. If this applies to your television, first adjust the television with the composite video input (set the VCR's VIDEO OUT switch to COMPOSITE), then switch to the RGB input and adjust for optimum results in steps 2, 3, and 4 above.

SPECIFICATIONS

Power requirement	: 220 – 240 V∿, 50/60 Hz
Power consumption	: 18 W
Video output	: 1 Vp-p 75 ohms, unbalanced
input	: 0.5 – 1.0 Vp-p, 75 ohms, unbalanced
Operating temperature	: 0°C – 40°C
Dimensions	: 220(W) x 231(D) x 61(H) mm
Weight	: 2.2 kg

Design and specifications subject to change without notice.

Optional cable
VC-V8961SE
AV Output Cable: 8-pin to 21-pin peri/3.5 mm mini plug for remote pause control.

1. ELECTRICAL ADJUSTMENTS

1.1 PREPARATIONS

1.1.1 Precautions

In the event of malfunction with electric circuits, trouble-shooting with the aid of proper test equipment must be done first, and then, commence necessary repair, replacement, and adjustment, etc.

1.1.2 Hooking up

There are three ways to hook up the test object and test equipment as follows. Select a proper hookup method for your electrical adjustments.

1. Hooking up - 1

In this hookup way shown in the figure below, the test object KM-V7EG/EK receives Y and C signals separately from HR-S5000EG/EK which supplies them from input color bars signal.

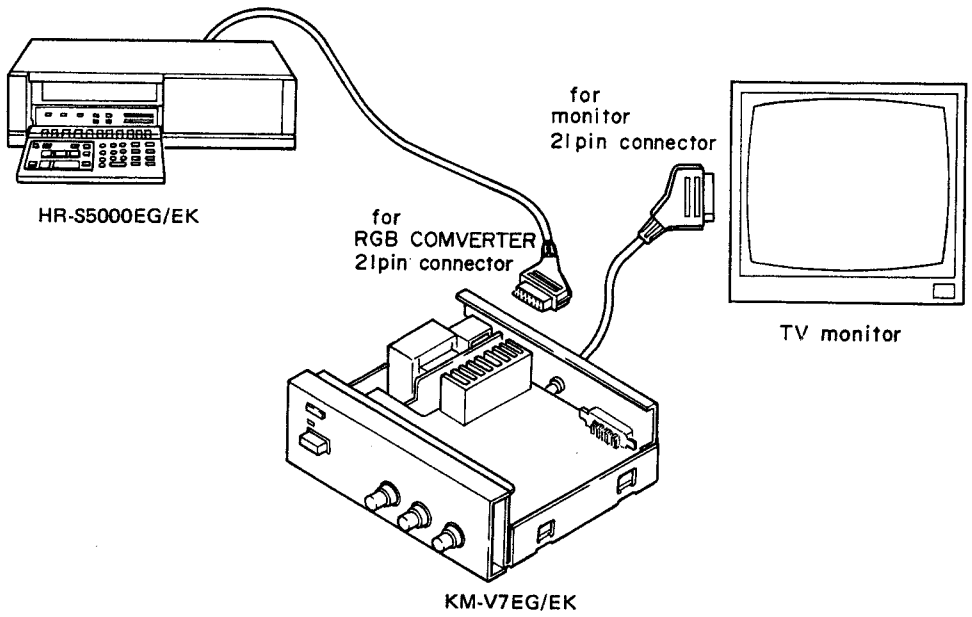


Fig. 1-1-2 (A)

2. Hooking up - 2

In this way (shown in the figure below), a Y/C separator is hooked up to supply C signal separated from the SECAM color bars signal to the pin 15 of the RGB connector of KM-V7EG/EK, while to supply Y signal to TP3 of KM-V7EG/EK.

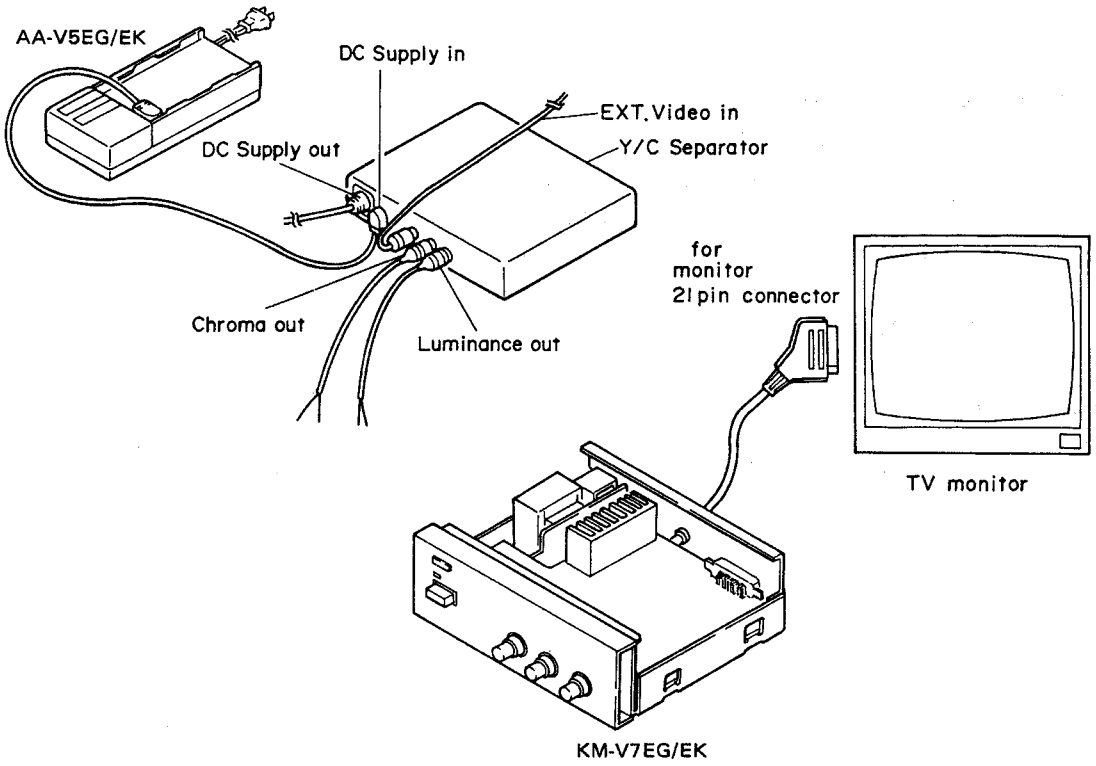


Fig. 1-1-2 (B)

3. Hooking up - 3

In this connection is a video sweep generator used to supply PAL sweep signal to TP3 of the KM-V7EG/EK.

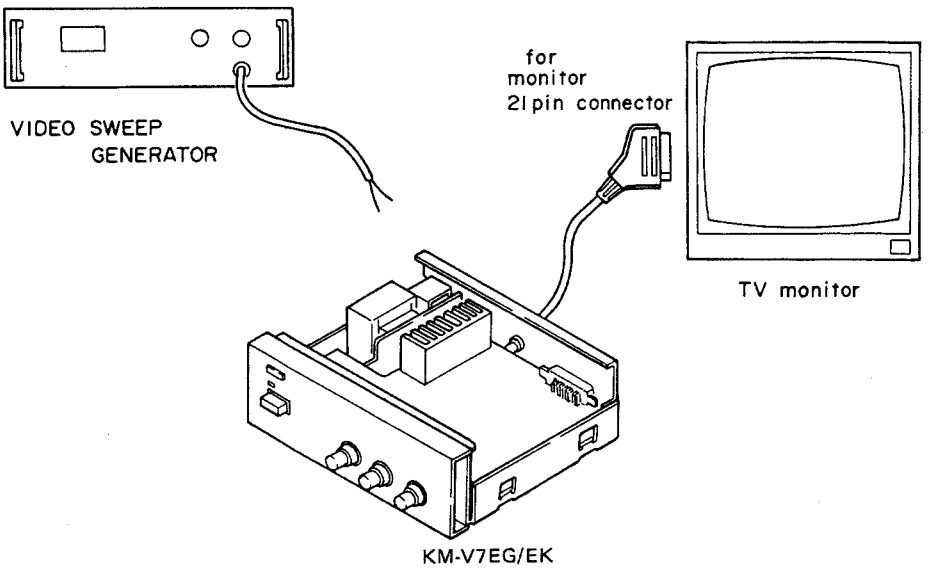


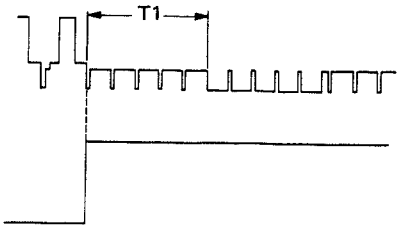
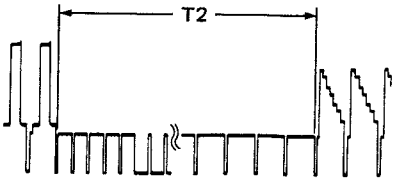
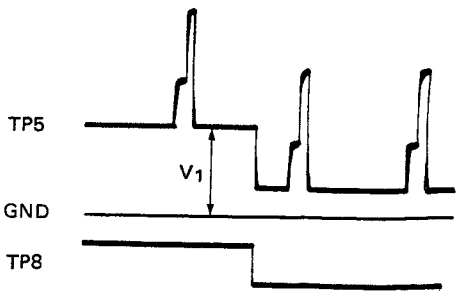
Fig. 1-1-2 (C)

1.2 REGULATOR CIRCUIT ADJUSTMENT

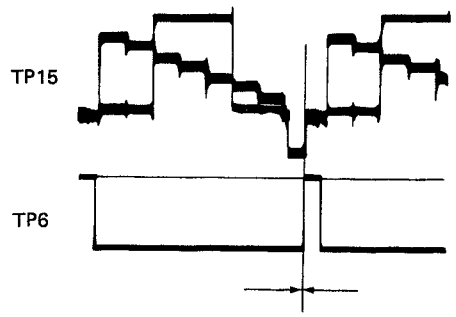
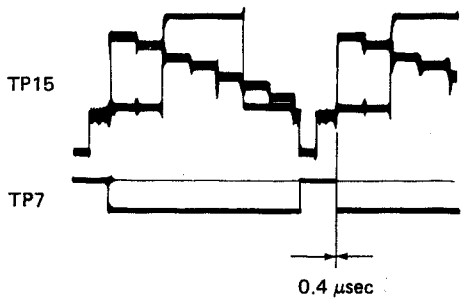
No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
1	REG 12 V adj.	–	TP16	VR1 (12V ADJ)	1) Connect a digital voltmeter to TP16. 2) Adjust VR1 to obtain 12.0 V ± 0.1 V.

1.3 SYNCHRONIZING (Synchronism Adjustment)

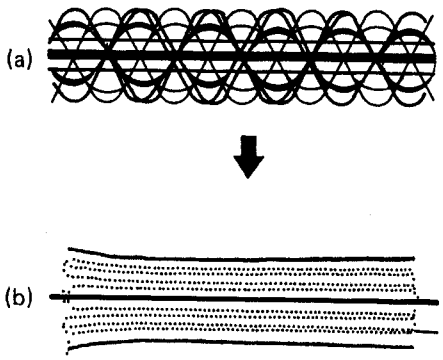
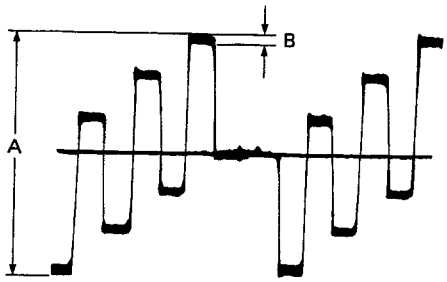
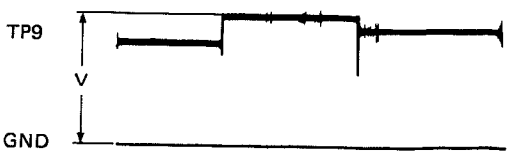
For this section, proceed all adjustments in the setup of "Hooking up-1".

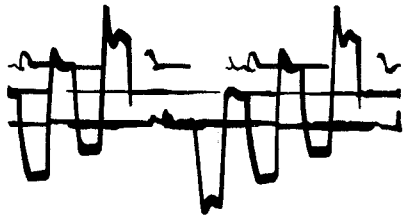
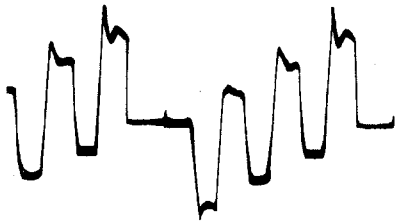
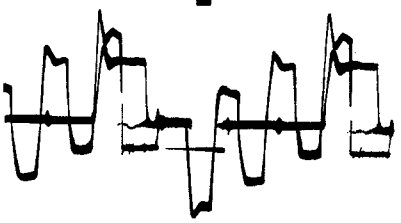
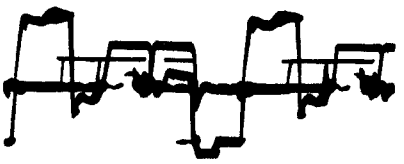
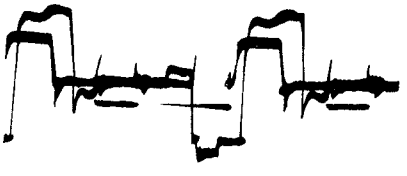
No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
1	Oscillation frequency adj.	PAL Color bars input MODE SW : "AUTO"	TP18 (PHASE COMPARATION)	VR11 (FH)	1) Shortcircuit TP4 and TP GND. 2) Connect a frequency counter to TP18. 3) Adjust VR11 so that the level becomes 15.625 Hz.
2	Vertical blanking width adj.	PAL Color bars input MODE SW : "AUTO"	TP8 (V BLK)	A (V DST) B (V BLK WIDTH)	1) Connect a dual-trace oscilloscope to TP3 (CH1) and TP8 (CH2). 2) Adjust A so that width of T1 becomes 2.5 H.  3) Adjust B so that width of T2 becomes 25 H. 
3	Side castle pulse	PAL Color bars input MODE SW : "AUTO"	TP5 (SCP) TP8 (V BLK)	VR12 (SIDE CASTLE PULSE MIX)	1) Connect a dual-trace oscilloscope to TP5 (CH1) and TP8 (CH2). 2) Adjust VR12 to obtain 2.2 V ± 0.1 V as the value of V1 of side castle pulse in the period of vertical blanking. 

SER. \ VR	A	B
KM-V7EG – #1000	VR14	VR13
KM-V7EG #1001 – #1 –	VR13	VR14

No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
4	Clamp pulse	PAL Color bars input MODE SW : "AUTO"	TP15 (H SYNC) TP6 (CLAMP PULSE)	VR15 (CP)	1) Connect a dual-trace oscilloscope to TP15 (CH1) and TP6 (CH2). 2) Use VR15 to coincide rise-up points of H. SYNC (TP15) and CLAMP PULSE (TP6) with each other. 
5	Composite blanking	PAL Color bars input MODE SW : "AUTO"	TP15 (H SYNC) TP7 (C BLK)	VR16 (C BLK)	1) Connect a dual-trace oscilloscope to TP15 (CH1) and TP7 (CH2). 2) Adjust VR16 so that rise-up time of the last video signal of H. SYNC (TP15) and the breaking time of C. BLK pulse (TP7) become 0.4 μsec respectively. 

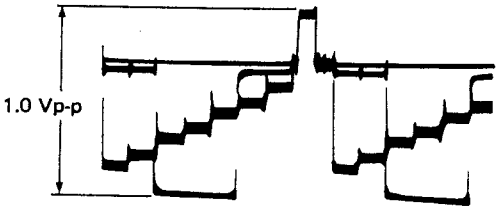
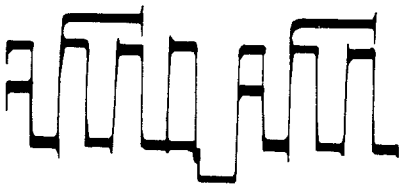
1.4 ADJUSTMENT OF COLOR SIGNAL DETECTION

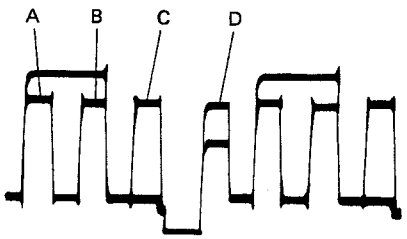
No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
1	PAL mode free-run adj.	PAL Color bars input for Hooking up-1 MODE SW : "AUTO"	TP10 (B-Y)	TC1 (PAL DET)	1) Connect the oscilloscope to TP10. 2) Adjust TC1 to obtain such a waveform as shown in the figure (b). 3) Disconnect the wire from GND. 
2	Color difference adj.	PAL Color bars input for Hooking up-1 MODE SW : "AUTO"	TP10 (B-Y)	VR3 (COL DIF) VR1 (DIF)	1) Connect the oscilloscope to TP10. 2) Adjust VR3 to obtain 1.33 ± 0.02 Vp-p as the value "A". 3) Adjust VR1 to minimize the value "B". 
3	SECAM mode detection	SECAM Color bars input for Hooking up-2 MODE SW : "AUTO"	TP9 (SECAM DET)	VL3 (SECAM DET)	1) Supply Y signal separated by a Y/C separator to TP3 while C signal to pin 15 of the RGB connector. 2) Connect the oscilloscope to TP9. 3) Adjust VL3 to obtain the maximum DC voltage. 

No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
4	SECAM mode B-Y setup	SECAM Color bars input for Hooking up-2 MODE SW : "AUTO"	TP10 (B-Y)	VL2 (B-Y SETUP)	1) Connect the oscilloscope to TP10. 2) Adjust VL2 to obtain such a waveform as shown in the figure (b). (a)  (b)  (c) 
5	SECAM mode R-Y setup	SECAM Color bars input for Hooking up-2 MODE SW : "AUTO"	TP11 (R-Y)	VL4 (R-Y SETUP)	1) Connect the oscilloscope to TP11. 2) Adjust VL4 to obtain such a waveform as shown in the figure (b). (a)  (b) (c) 

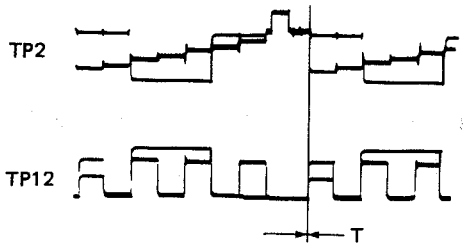
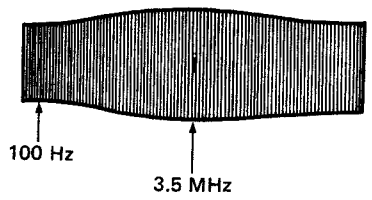
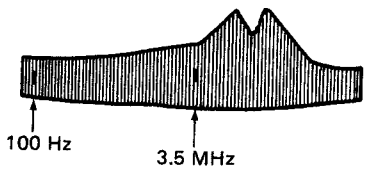
1.5 RGB ADJUSTMENT

For this section, proceed all adjustments in the setup of "Hooking up-1".

No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
1	–Y input adj.	PAL Color bars input MODE SW : "AUTO"	TP2 (–Y)	VR10 (Y ADJ 3)	1) Connect the oscilloscope to TP2. 2) Adjust VR10 so that Y level becomes of 1.0 Vp-p. 
2	Sub Bright	PAL Color bars input MODE SW : "AUTO"	TP12 (B)	VR7 (SUB BRIGHT)	1) Connect the oscilloscope to TP12. 2) Adjust VR7 to obtain such a waveform as shown in the figure (b). **Note:** For this adjustment, make sure to set the BRIGHTNESS VR (on the front) to the center detent position. (a)  (b) (c)

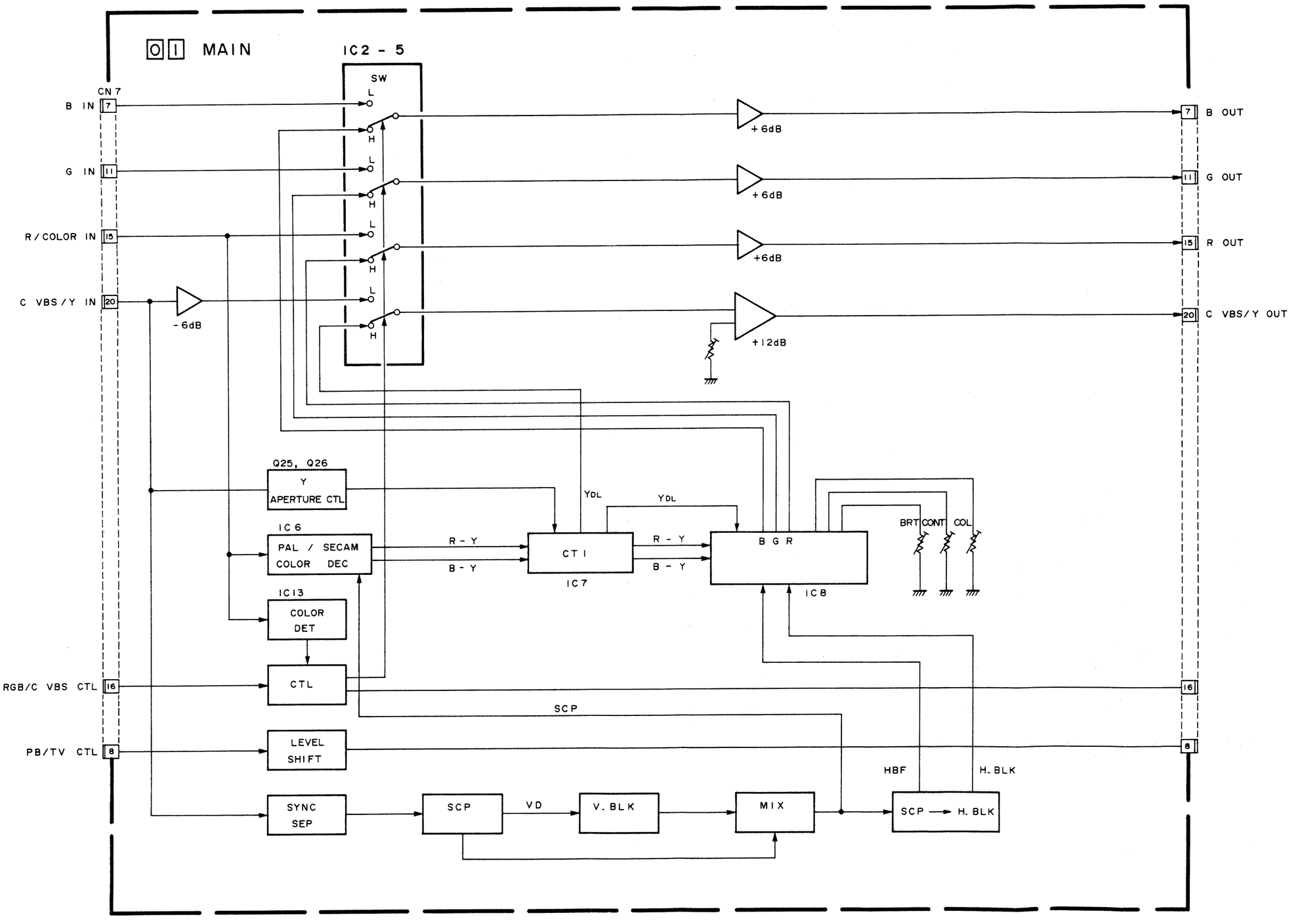
No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts / Waveform & Adjustment	Procedure
3	Sub Contrast	PAL Color bars input MODE SW : "AUTO"	TP12 (B)	VR8 (SUB CONT)	1) Connect the oscilloscope to TP12. 2) Adjust VR8 to obtain 0.7 Vp-p as the value of "A". **Note:** For this adjustment, make sure to set the BRIGHTNESS, CONTRAST and COLOR VRs (all on the front) to the center detent position, respectively.
4	Sub Color	PAL Color bars input MODE SW : "AUTO"	TP12 (B)	VR9 (SUB COL)	1) Connect the oscilloscope to TP12. 2) Adjust VR9 to equalize levels of "A" to "D". **Note:** For this adjustment, make sure to set the BRIGHTNESS VR (on the front) to the fulull clockwise position. 

1.6 Y (LUMINANCE), FREQUENCY ADJUSTMENT

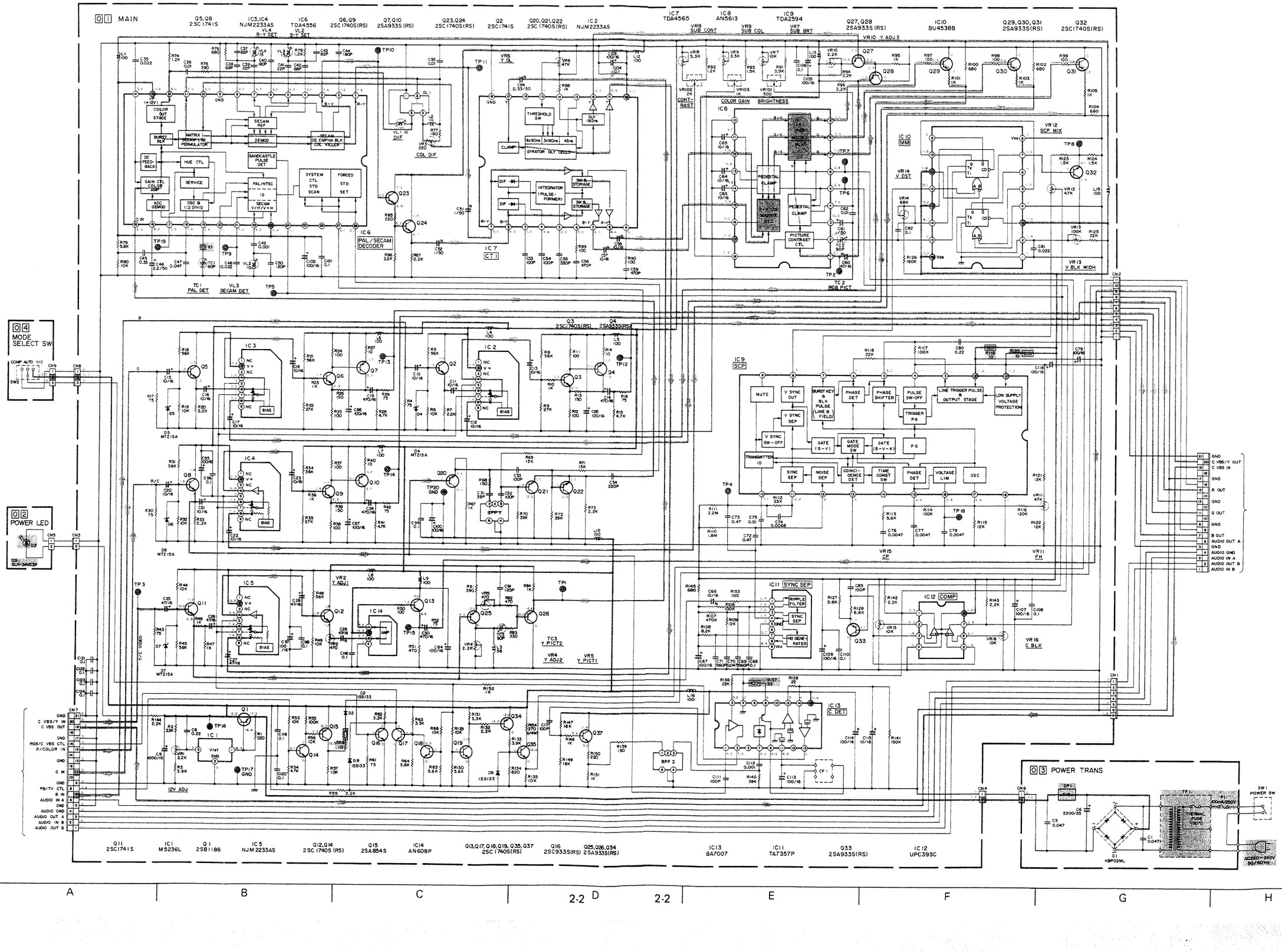
No.	Item	Mode & Signal	Test Point / Waveform & Adjustment	Adjustment Parts	Procedure
1	Y signal output adj.	PAL Color bars input for Hooking up-1 MODE SW : "AUTO"	TP15 (Y OUT)	VR2 (Y ADJ 2)	1) Connect the oscilloscope to TP15. 2) Adjust VR2 so that Y level becomes of 2.0 Vp-p.
2	Y signal delay time	PAL Color bars input for Hooking up-1 MODE SW : "AUTO"	TP2 (–Y) TP12 (B)	VR6 (Y DL)	1) Connect a dual-trace oscilloscope to TP2 (CH1) and TP12 (CH2). 2) Adjust VR6 to minimize "T" (see figure). 
3	Y signal EQ adj.	Video sweep generator for Hooking up-3 MODE SW : "AUTO"	TP1 (EDGE)	VR4 (Y ADJ 2) VR5 (Y PICT 1) TC3 (Y PICT 3)	1) Supply sweep signal the minus (–) side of C25 from a sweep generator. 2) Adjust VR4 to maximize the amplitude. 3) Adjust VR5 and TC3 alternately so that only the 3.5 MHz signal peaks in the waveform. 4) Adjust VR4 so that the ratio between the sweeper's 100 kHz marker and 3.5 MHz marker becomes 1.5 to 1, namely; a : b = 1 : 1.5 
4	R,G,B picture	Video sweep generator for Hooking up-3 MODE SW : "Y/C"	TP12 (B)	TC2 (RGB PICT)	1) Connect the oscilloscope to TP12. 2) Adjust TC2 so that the ratio between the amplitudes of 3.5 MHz signal and 100 kHz signal becomes 1.7 to 1, namely; a : b = 1 : 1.7 

2. DIAGRAMS AND CIRCUIT BOARDS

2.1 BLOCK DIAGRAM

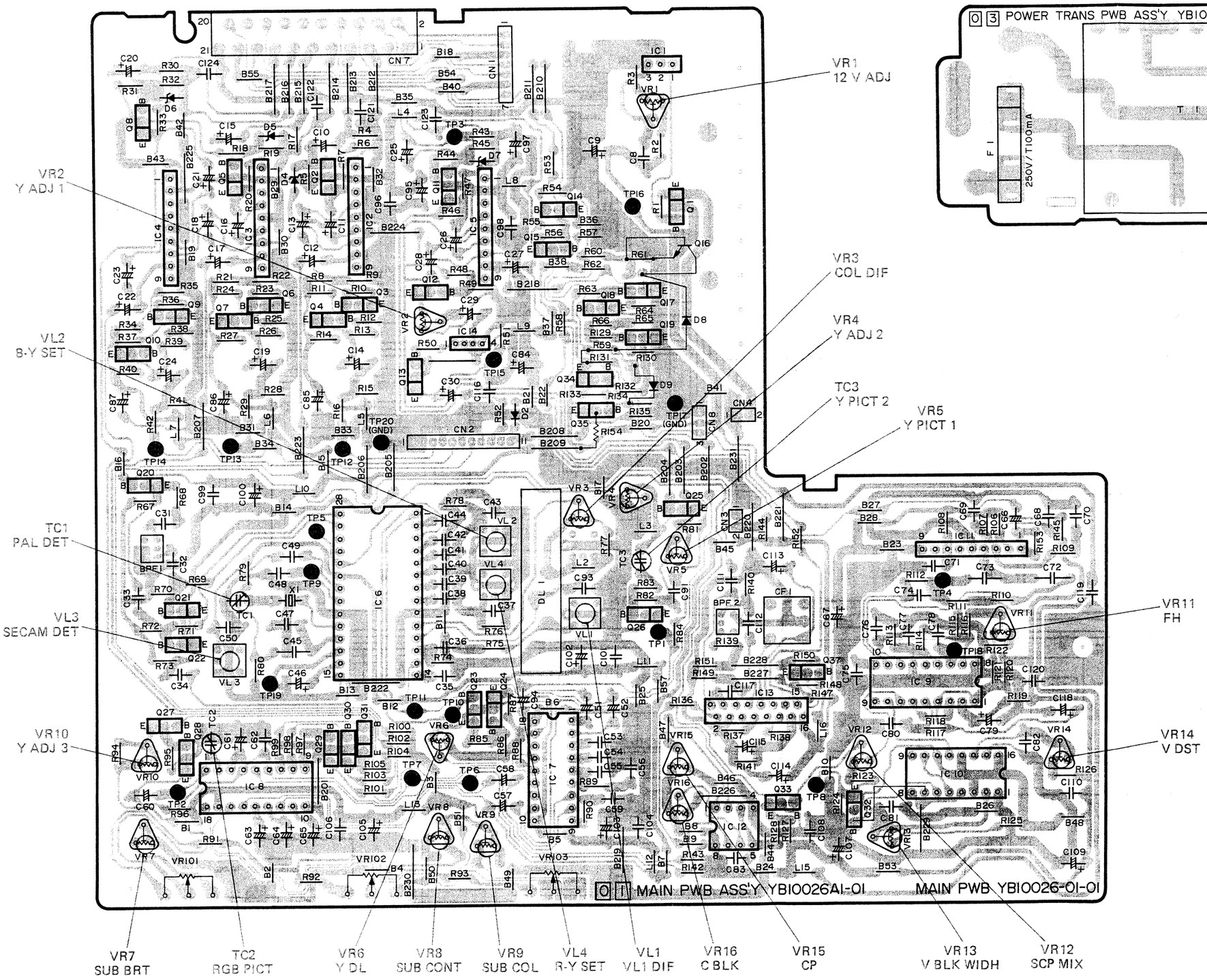


2.2 SCHEMATIC DIAGRAM (EG: – #1000/EK: – #200)

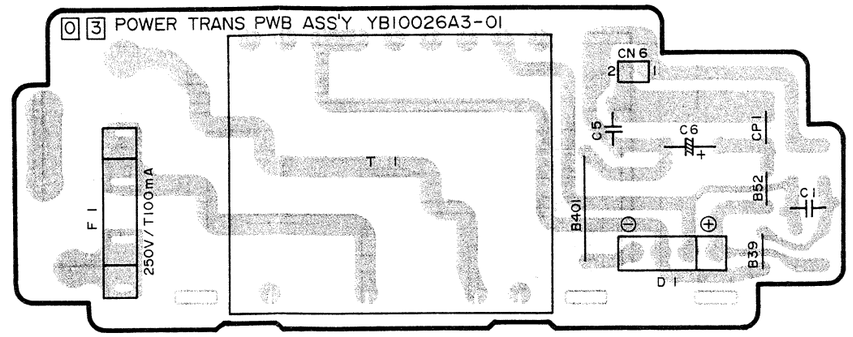


2.3 CIRCUIT BOARDS (EG: – #1000/EK: – #200)

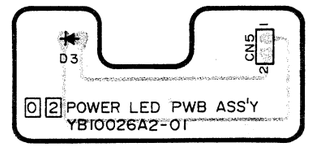
– MAIN –



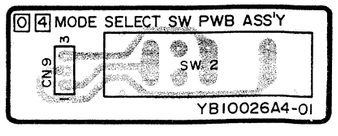
– POWER TRANS –



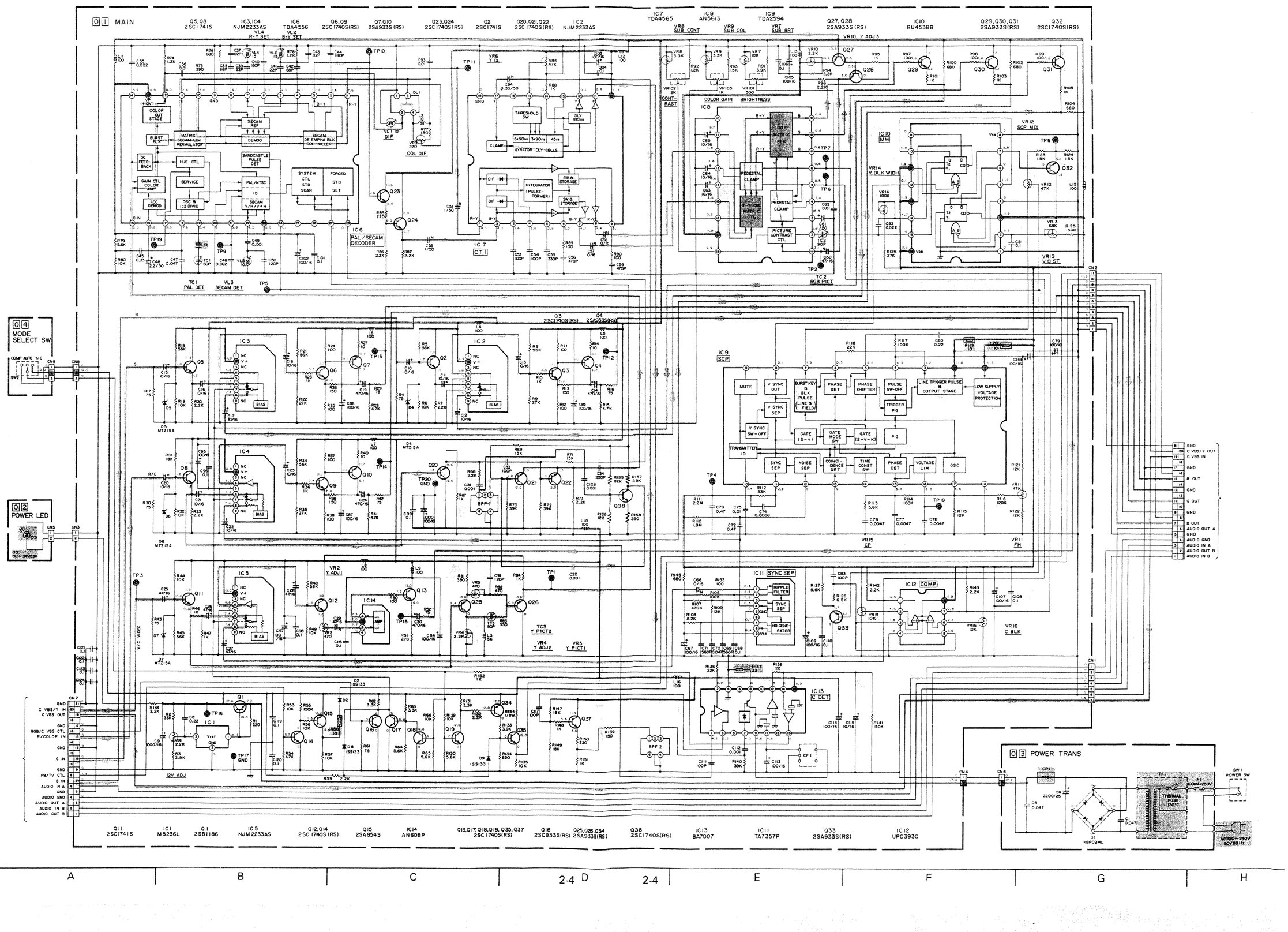
– POWER LED –



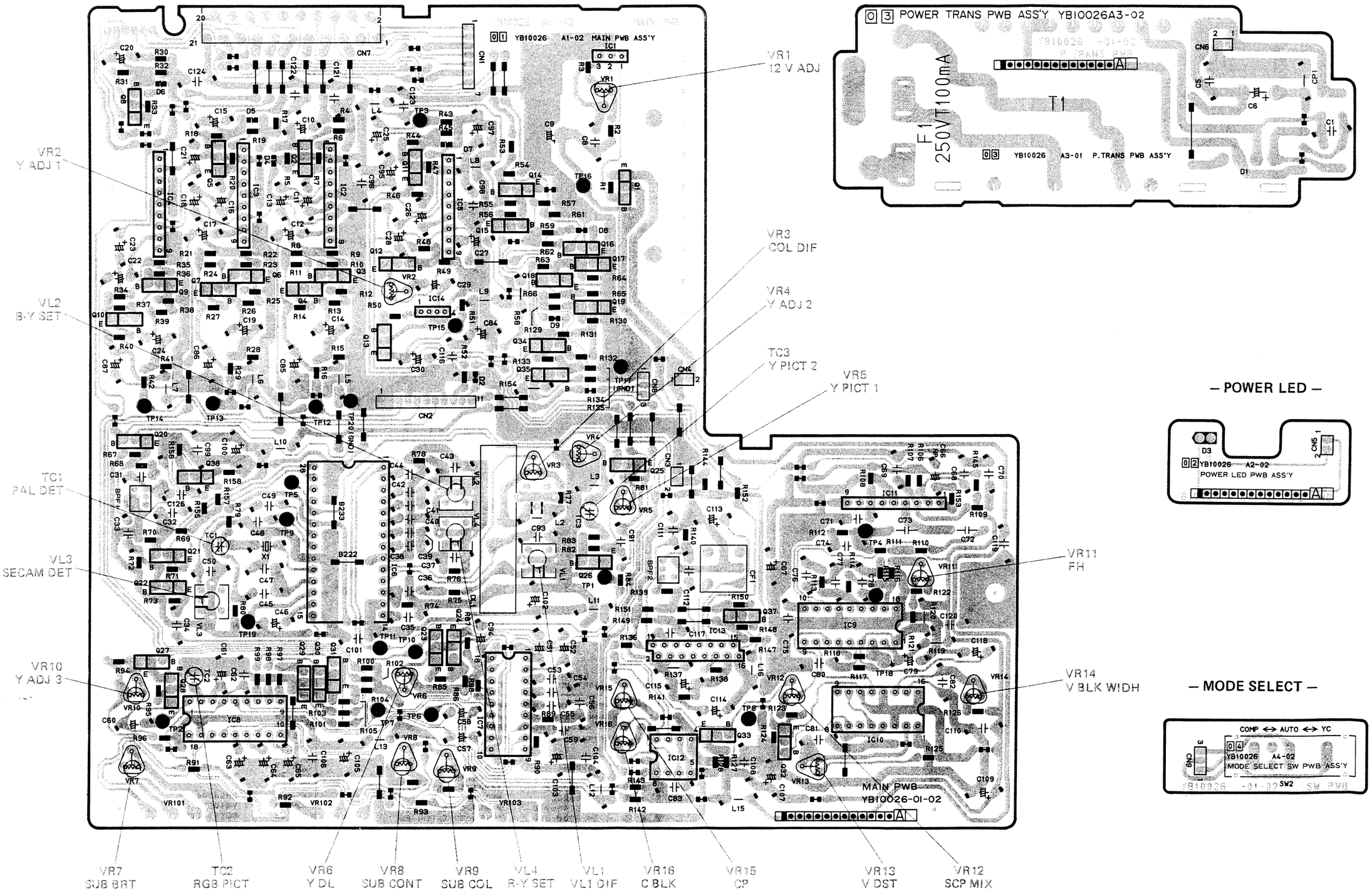
– MODE SELECT –



2.4 SCHEMATIC DIAGRAM (EG: #1001 – /EK: #201 –)



2.5 CIRCUIT BOARDS (EG: #1001 – /EK: #201 –)



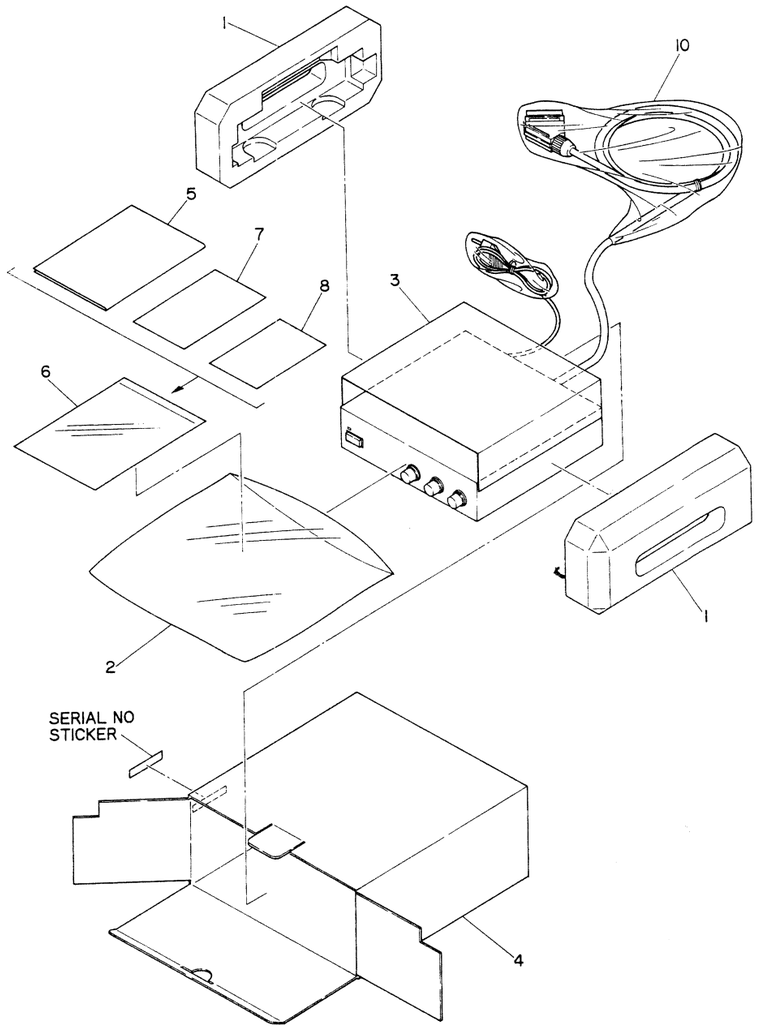
— POWER TRANS —

— POWER LED —

— MODE SELECT —

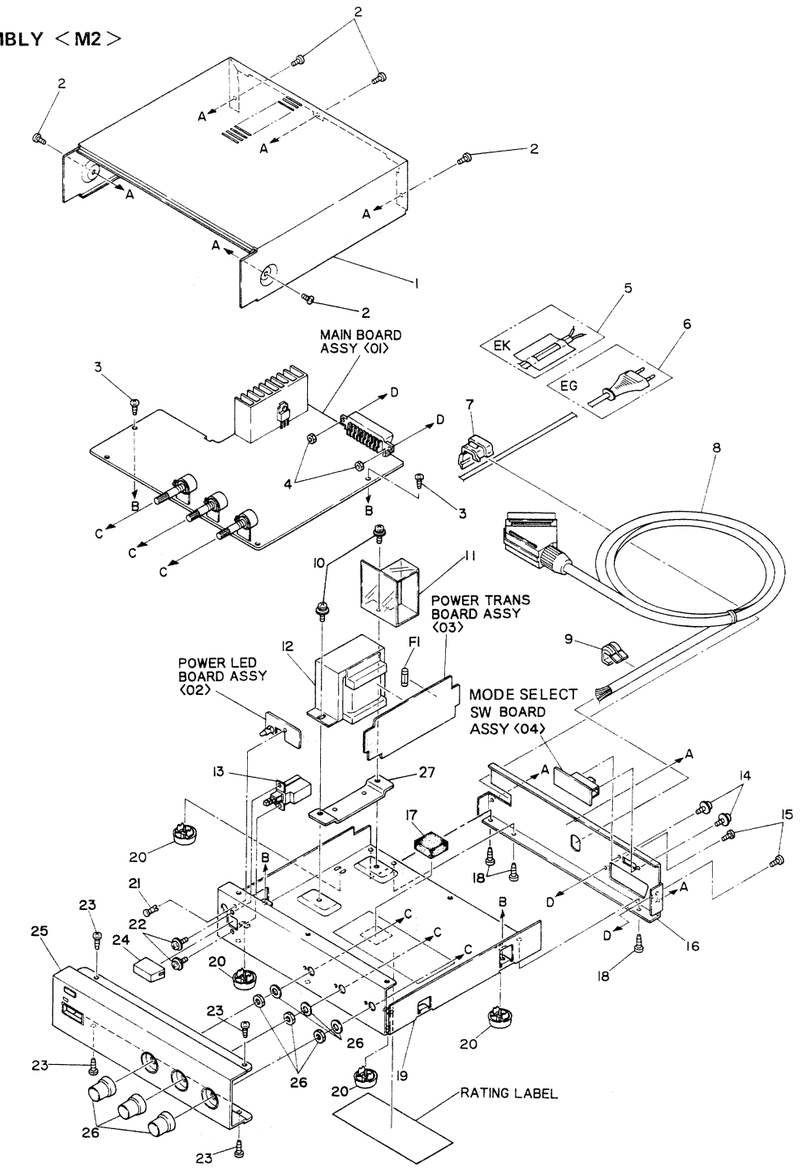
3. EXPLODED VIEWS AND PARTS LIST

3.1 PACKING ASSEMBLY <M1>



#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
			**********
			* 1. PACKING ASSEMBLY <M1> *
			**********
	1	YQ30295A	CUSHION ASSY
	2	QPGA030-04005	POLY BAG
	3	YQ40475-2	RPOTECT SHEET
	4	YQ20158	PACKING CASE,FOR EG
		YQ20158-2	PACKING CASE,FOR EK
⚠	5	YU30052-39	INSTRUCTIONS,FOR EG
⚠		YU30052-58	INSTRUCTIONS,FOR EK
	6	QPGA020-03005	POLY BAG
⚠	7	BT-20060	GUARANTY CARD,FOR EK
⚠	8	BT-20066	E.DISTRI.LIST,FOR EK
	10	QPGA025-03505	POLY BAG

3.2 CABINET ASSEMBLY <M2>



#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
			**********
			* 2. CABINET ASSEMBLY <M2> *
			**********
⚠	1	YQ20154	TOP COVER
	2	SDSP3006M	SCREW,X5
	3	SDST3006Z	TAPPING SCREW,X2
	4	NFS3000Z	NUT,X2
⚠	5	QMP5140-200	POWER CORD,FOR EK
⚠	6	QMP3980-200	POWER CORD,FOR EG
⚠	7	QHS3771-108	STRAIN RELIEF
	8	YU40760	PERI CABLE AS
	9	QHS8391-162	CORD STOPPER
	10	DPSP4008Z	SCREW,X2
⚠	11	YQ40898-1-1	BARRIER COVER
⚠	12	YU40762	POWER TRANSFORMER
⚠	13	YU40759	POWER SW
	14	SDSP2606M	SCREW,X2
	15	SDSP3008M	SCREW,X2
⚠	16	YQ20155-1-3	REAR BKT
	17	YQ40476-5	SPACER
	18	SDST3006Z	TAPPING SCREW,X3
⚠	19	YQ10101-1-3	BOTTOM CHASSIS
	20	YU40758	FOOT,X4
	21	PU50346	PLASTICRIVET
⚠	22	YQ40551	SCREW,X2
	23	SDST3006M	SCREW,X4
	24	PQ43071-2	POWER BUTTON
⚠	25	YQ20152B-1	FRONT PANEL ASSY,FOR EK
⚠		YQ20152A-1	FRONT PANEL ASSY,FOR EG
	26	PQ31637-1-1	VOLUME BUTTON,X3
	27	YQ40946	PLATE

4. ELECTRICAL PARTS LIST

4.1 PARTS LIST (EG: – #1000/EK: – #200)

3. MAIN BOARD ASSEMBLY <01>

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	PWBA	YB10026A1-01	MAIN BOARD ASSY
	IC1	M5236L	IC
	IC2	NJM2233AS	IC
	IC3	NJM2233AS	IC
	IC4	NJM2233AS	IC
	IC5	NJM2233AS	IC
	IC6	TDA4556	IC
	IC7	TDA4565	IC
	IC8	AN5613	IC
	IC9	TDA2594	IC
	IC10	BU4538B	IC
	IC11	TA7357P	IC
	IC12	UPC393C	IC
	IC13	BA7007	IC
	IC14	AN608P	IC
	Q 1	2SB1186	TRANSISTOR
	Q 2	2SC1741S	TRANSISTOR
	Q 3	2SC1740S(RS)	TRANSISTOR
	Q 4	2SA933S(RS)	TRANSISTOR
	Q 5	2SC1741S	TRANSISTOR
	Q 6	2SC1740S(RS)	TRANSISTOR
	Q 7	2SA933S(RS)	TRANSISTOR
	Q 8	2SC1741S	TRANSISTOR
	Q 9	2SC1740S(RS)	TRANSISTOR
	Q10	2SA933S(RS)	TRANSISTOR
	Q11	2SC1741S	TRANSISTOR
	Q12	2SC1740S(RS)	TRANSISTOR
	Q13	2SC1740S(RS)	TRANSISTOR
	Q14	2SC1740S(RS)	TRANSISTOR
	Q15	2SA854S	TRANSISTOR
	Q16	2SC933S(RS)	TRANSISTOR
	Q17	2SC1740S(RS)	TRANSISTOR
	Q18	2SC1740S(RS)	TRANSISTOR
	Q19	2SC1740S(RS)	TRANSISTOR
	Q20	2SC1740S(RS)	TRANSISTOR
	Q21	2SC1740S(RS)	TRANSISTOR
	Q22	2SC1740S(RS)	TRANSISTOR
	Q23	2SC1740S(RS)	TRANSISTOR
	Q24	2SC1740S(RS)	TRANSISTOR
	Q25	2SA933S(RS)	TRANSISTOR
	Q26	2SA933S(RS)	TRANSISTOR
	Q27	2SA933S(RS)	TRANSISTOR
	Q28	2SA933S(RS)	TRANSISTOR
	Q29	2SA933S(RS)	TRANSISTOR
	Q30	2SA933S(RS)	TRANSISTOR
	Q31	2SA933S(RS)	TRANSISTOR
	Q32	2SC1740S(RS)	TRANSISTOR
	Q33	2SA933S(RS)	TRANSISTOR
	Q34	2SA933S(RS)	TRANSISTOR
	Q35	2SC1740S(RS)	TRANSISTOR
	Q37	2SC1740S(RS)	TRANSISTOR
	D2	1SS133	DIODE
	D4	MTZ15A	ZENER DIODE
	D5	MTZ15A	ZENER DIODE
	D6	MTZ15A	ZENER DIODE
	D7	MTZ15A	ZENER DIODE
	D8	1SS133	DIODE
	D9	1SS133	DIODE

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R 1	QRD161J-221	RESISTOR
	R 2	QRD161J-333	RESISTOR
	R 3	QRD161J-392	RESISTOR
	R 4	QRD161J-750	RESISTOR
	R 5	QRD161J-563	RESISTOR
	R 6	QRD161J-103	RESISTOR
	R 7	QRD161J-222	RESISTOR
	R 8	QRD161J-563	RESISTOR
	R 9	QRD161J-273	RESISTOR
	R10	QRD161J-102	RESISTOR
	R11	QRD161J-101	RESISTOR
	R12	QRD161J-101	RESISTOR
	R13	QRD161J-151	RESISTOR
	R14	QRD161J-100	RESISTOR
	R15	QRD161J-472	RESISTOR
	R16	QRD161J-750	RESISTOR
	R17	QRD161J-750	RESISTOR
	R18	QRD161J-563	RESISTOR
	R19	QRD161J-103	RESISTOR
	R20	QRD161J-222	RESISTOR
	R21	QRD161J-563	RESISTOR
	R22	QRD161J-273	RESISTOR
	R23	QRD161J-102	RESISTOR
	R24	QRD161J-101	RESISTOR
	R25	QRD161J-101	RESISTOR
	R26	QRD161J-151	RESISTOR
	R27	QRD161J-100	RESISTOR
	R28	QRD161J-472	RESISTOR
	R29	QRD161J-750	RESISTOR
	R30	QRD161J-750	RESISTOR
	R31	QRD161J-563	RESISTOR
	R32	QRD161J-103	RESISTOR
	R33	QRD161J-222	RESISTOR
	R34	QRD161J-563	RESISTOR
	R35	QRD161J-273	RESISTOR
	R36	QRD161J-102	RESISTOR
	R37	QRD161J-101	RESISTOR
	R38	QRD161J-101	RESISTOR
	R39	QRD161J-151	RESISTOR
	R40	QRD161J-100	RESISTOR
	R41	QRD161J-472	RESISTOR
	R42	QRD161J-750	RESISTOR
	R43	QRD161J-750	RESISTOR
	R44	QRD161J-103	RESISTOR
	R45	QRD161J-563	RESISTOR
	R46	QRD161J-102	RESISTOR
	R47	QRD161J-102	RESISTOR
	R48	QRD161J-563	RESISTOR
	R49	QRD161J-103	RESISTOR
	R50	QRD161J-101	RESISTOR
	R51	QRD161J-471	RESISTOR
	R52	QRD161J-750	RESISTOR
	R53	QRD161J-103	RESISTOR
	R54	QRD161J-472	RESISTOR
	R55	QRD161J-104	RESISTOR
	R56	QRD161J-103	RESISTOR
	R57	QRD161J-103	RESISTOR
⚠	R58	YU40905-100	POSISTOR
	R59	QRD161J-222	RESISTOR
	R61	QRD161J-750	RESISTOR
	R62	QRD161J-332	RESISTOR
	R63	QRD161J-332	RESISTOR
	R64	QRD161J-562	RESISTOR
	R65	QRD161J-562	RESISTOR
	R66	QRD161J-103	RESISTOR
	R67	QRD161J-102	RESISTOR
	R68	QRD161J-151	RESISTOR
	R69	QRD161J-153	RESISTOR
	R70	QRD161J-393	RESISTOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R71	QRD161J-153	RESISTOR
	R72	QRD161J-393	RESISTOR
	R73	QRD161J-222	RESISTOR
	R74	QRD161J-122	RESISTOR
	R75	QRD161J-391	RESISTOR
	R76	QRD161J-681	RESISTOR
	R77	QRD161J-181	RESISTOR
	R78	QRD161J-122	RESISTOR
	R79	QRD161J-562	RESISTOR
	R80	QRD161J-103	RESISTOR
	R81	QRD161J-391	RESISTOR
	R82	QRD161J-471	RESISTOR
	R83	QRD161J-331	RESISTOR
	R84	QRD161J-102	RESISTOR
	R85	QRD161J-221	RESISTOR
	R86	QRD161J-222	RESISTOR
	R87	QRD161J-222	RESISTOR
	R88	QRD161J-102	RESISTOR
	R89	QRD161J-101	RESISTOR
	R90	QRD161J-101	RESISTOR
	R91	QRD161J-392	RESISTOR
	R92	QRD161J-122	RESISTOR
	R93	QRD161J-152	RESISTOR
	R94	QRD161J-222*	RESISTOR
	R95	QRD161J-102	RESISTOR
	R96	QRD161J-222	RESISTOR
	R97	QRD161J-101	RESISTOR
	R98	QRD161J-101	RESISTOR
	R99	QRD161J-101	RESISTOR
	R100	QRD161J-681	RESISTOR
	R101	QRD161J-102	RESISTOR
	R102	QRD161J-681	RESISTOR
	R103	QRD161J-102	RESISTOR
	R104	QRD161J-681	RESISTOR
	R105	QRD161J-102	RESISTOR
	R106	QRD161J-104	RESISTOR
	R107	QRD161J-474	RESISTOR
	R108	QRD161J-822	RESISTOR
	R109	QRD161J-123	RESISTOR
	R110	QRD161J-185	RESISTOR
	R111	QRD161J-225	RESISTOR
	R112	QRD161J-333	RESISTOR
	R113	QRD161J-562	RESISTOR
	R114	QRD161J-104	RESISTOR
	R115	QRD161J-123	RESISTOR
	R116	QRD161J-124	RESISTOR
	R117	QRD161J-104	RESISTOR
	R118	QRD161J-223	RESISTOR
⚠	R119	YU40905-100	POSISTOR
⚠	R120	YU40905-100	POSISTOR
	R121	QRD161J-123	RESISTOR
	R122	QRD161J-123	RESISTOR
	R123	QRD161J-152	RESISTOR
	R124	QRD161J-152	RESISTOR
	R125	QRD161J-223	RESISTOR
	R126	QRD161J-184	RESISTOR
	R127	QRD161J-562	RESISTOR
	R128	QRD161J-682	RESISTOR
	R129	QRD161J-103	RESISTOR
	R130	QRD161J-562	RESISTOR
	R131	QRD161J-332	RESISTOR
	R132	QRD161J-222	RESISTOR
	R133	QRD161J-392	RESISTOR
	R134	QRD161J-821	RESISTOR
	R135	QRD161J-103	RESISTOR
	R136	QRD161J-223	RESISTOR
	R137	YU40905-330	POSISTOR
	R138	QRD161J-220	RESISTOR
	R139	QRD161J-151	RESISTOR
	R140	QRD161J-393	RESISTOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R141	QRD161J-154	RESISTOR
	R142	QRD161J-222	RESISTOR
	R143	QRD161J-222	RESISTOR
	R144	QRD161J-222	RESISTOR
	R145	QRD161J-681	RESISTOR
	R147	QRD161J-183	RESISTOR
	R148	QRD161J-102	RESISTOR
	R149	QRD161J-183	RESISTOR
	R150	QRD161J-221	RESISTOR
	R151	QRD161J-102	RESISTOR
	R152	QRD161J-102	RESISTOR
	R153	QRD161J-101	RESISTOR
	R154	QRD141J-271	RESISTOR
	VR 1	QVZ3531-222	V RESISTOR, 12 V ADJ
	VR 2	QVZ3531-471	V RESISTOR, Y ADJ 1
	VR 3	QVZ3531-221	V RESISTOR, COL DIF
	VR 4	QVZ3531-222	V RESISTOR, Y ADJ 2
	VR 5	QVZ3531-471	V RESISTOR, Y PIC 1
	VR 6	QVZ3531-473	V RESISTOR, Y DL
	VR 7	QVZ3531-103	V RESISTOR, SUB BRT
	VR 8	QVZ3531-332	V RESISTOR, SUB CONT
	VR 9	QVZ3531-332	V RESISTOR, SUB COL
	VR10	QVZ3531-222	V RESISTOR, Y ADJ 3
	VR11	QVZ3531-473	V RESISTOR, FH
	VR12	QVZ3531-473	V RESISTOR, SCP MIX
	VR13	QVZ3531-104	V RESISTOR, V BLK WIDH
	VR14	QVZ3531-683	V RESISTOR, V DST
	VR15	QVZ3531-103	V RESISTOR, CP
	VR16	QVZ3531-103	V RESISTOR, C BLK
	VR101	YU40779	V RESISTOR
	VR102	YU40859	V.RESITOR
	VR103	YU40860	V RESISTOR
	C 8	QFN31HJ-224	M CAPACITOR
	C 9	QEU41CM-108	E CAPACITOR
	C10	QET61CM-106	E CAPACITOR
	C11	QET61CM-106	E CAPACITOR
	C12	QET61CM-106	E CAPACITOR
	C13	QET61CM-106	E CAPACITOR
	C14	QETC1CM-477	E CAPACITOR
	C15	QET61CM-106	E CAPACITOR
	C16	QET61CM-106	E CAPACITOR
	C17	QET61CM-106	E CAPACITOR
	C18	QET61CM-106	E CAPACITOR
	C19	QETC1CM-477	E CAPACITOR
	C20	QET61CM-106	E CAPACITOR
	C21	QET61CM-106	E CAPACITOR
	C22	QET61CM-106	E CAPACITOR
	C23	QET61CM-106	E CAPACITOR
	C24	QETC1CM-477	E CAPACITOR
	C25	QET61CM-476	E CAPACITOR
	C26	QET61CM-476	E CAPACITOR
	C27	QET61CM-476	E CAPACITOR
	C28	QET61CM-476	E CAPACITOR
	C29	QEN61CM-476	NP E CAPACITOR
	C30	QETC1CM-477	E CAPACITOR
	C31	QCSB1HJ-390	CAPACITOR
	C32	QCBB1HJ-101	CAPACITOR
	C33	QCBB1HJ-101	CAPACITOR
	C34	QCBB1HJ-221	CAPACITOR
	C35	QFN31HJ-223	M CAPACITOR
	C36	QFN31HJ-103	M CAPACITOR
	C37	QCT25RH-820	CAPACITOR
	C38	QCSB1HJ-680	CAPACITOR
	C39	QCSB1HJ-220	CAPACITOR
	C40	QCBB1HJ-181	CAPACITOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	C41	QCSB1HJ-220	CAPACITOR
	C42	QCSB1HJ-680	CAPACITOR
	C43	QCT25RH-820	CAPACITOR
	C44	QCBB1HJ-181	CAPACITOR
	C45	QFN31HJ-334	M CAPACITOR
	C46	QET61HM-225	E CAPACITOR
	C47	QFN31HJ-473	M CAPACITOR
	C48	QFN31HJ-223	M CAPACITOR
	C49	QFN31HJ-102	M CAPACITOR
	C50	QCBB1HJ-121	CAPACITOR
	C51	QEN61HM-105	NP E CAPACITOR
	C52	QEN61HM-105	NP E CAPACITOR
	C53	QCBB1HJ-101	CAPACITOR
	C54	QCBB1HJ-101	CAPACITOR
	C55	QCBB1HJ-331	CAPACITOR
	C56	QCBB1HJ-471	CAPACITOR
	C57	QEN61CM-106	NP E CAPACITOR
	C58	QEN61CM-106	NP E CAPACITOR
	C59	QCBB1HJ-471	CAPACITOR
	C60	QEN61CM-476	NP E CAPACITOR
	C61	QET61HM-105	E CAPACITOR
	C62	QFN31HJ-103	M CAPACITOR
	C63	QET61CM-106	E CAPACITOR
	C64	QET61CM-106	E CAPACITOR
	C65	QET61CM-106	E CAPACITOR
	C66	QEN61CM-106	NP E CAPACITOR
	C67	QET61CM-107	E CAPACITOR
	C68	QFN31HJ-104	M CAPACITOR
	C69	QCBB1HJ-561	CAPACITOR
	C70	QFN31HJ-473	M CAPACITOR
	C71	QCBB1HJ-561	CAPACITOR
	C72	QFN31HJ-474	M CAPACITOR
	C73	QFN31HJ-474	M CAPACITOR
	C74	QFN31HJ-682	M CAPACITOR
	C75	QFN31HJ-103	M CAPACITOR
	C76	QFN31HJ-472	M CAPACITOR
	C77	QFN31HJ-472	M CAPACITOR
	C78	QFN31HJ-472	M CAPACITOR
	C79	QET61CM-107	E CAPACITOR
	C80	QFN31HJ-224	M CAPACITOR
	C81	QFN31HJ-223	M CAPACITOR
	C82	QFN31HJ-104	M CAPACITOR
	C83	QCT25CH-101	CAPACITOR
	C84	QET61CM-107	E CAPACITOR
	C85	QET61CM-107	E CAPACITOR
	C86	QET61CM-107	E CAPACITOR
	C87	QET61CM-107	E CAPACITOR
	C91	QCBB1HJ-121	CAPACITOR
	C93	QFN31HJ-103	M CAPACITOR
	C94	QEN61HM-334	NP E CAPACITOR
	C95	QET61CM-107	E CAPACITOR
	C96	QFN31HJ-104	M CAPACITOR
	C97	QET61CM-107	E CAPACITOR
	C98	QFN31HJ-104	M CAPACITOR
	C99	QFN31HJ-104	M CAPACITOR
	C100	QET61CM-107	E CAPACITOR
	C101	QFN31HJ-104	M CAPACITOR
	C102	QET61CM-107	E CAPACITOR
	C103	QET61CM-107	E CAPACITOR
	C104	QFN31HJ-104	M CAPACITOR
	C105	QET61CM-107	E CAPACITOR
	C106	QFN31HJ-104	M CAPACITOR
	C107	QET61CM-107	E CAPACITOR
	C108	QFN31HJ-104	M CAPACITOR
	C109	QEK61CM-107	E CAPACITOR
	C110	QFN31HJ-104	M CAPACITOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	C111	QCBB1HJ-101	CAPACITOR
	C112	QFN31HJ-102	M CAPACITOR
	C113	QET61CM-107	E CAPACITOR
	C114	QET61CM-107	E CAPACITOR
	C115	QET61CM-106	E CAPACITOR
	C116	QFN31HJ-104	M CAPACITOR
	C117	QCBB1HJ-101	CAPACITOR
	C118	QET61CM-107	E CAPACITOR
	C119	QCC31EM-104	CAPACITOR
	C120	QCC31EM-104	CAPACITOR
	C121	QCC31EM-104	CAPACITOR
	C122	QCC31EM-104	CAPACITOR
	C123	QCC31EM-104	CAPACITOR
	C124	QCC31EM-104	CAPACITOR
	TC1	QAT3120-600	TRIMMER CAP, PAL DEL
	TC2	QAT3210-900	TRIMMER CAP, RGB PICT
	TC3	QAT3210-900	TRIMMER CAP, T PICT 2
	L 2	PU48530-100K	PEAKING COIL
	L 3	PU48530-560K	PEAKING COIL
	L 4	PU48530-101K	PEAKING COIL
	L 5	PU48530-101K	PEAKING COIL
	L 6	PU48530-101K	PEAKING COIL
	L 7	PU48530-101K	PEAKING COIL
	L 8	PU48530-101K	PEAKING COIL
	L 9	PU48530-101K	PEAKING COIL
	L10	PU48530-101K	PEAKING COIL
	L11	PU48530-101K	PEAKING COIL
	L12	PU48530-101K	PEAKING COIL
	L13	PU48530-101K	PEAKING COIL
	L15	PU48530-101K	PEAKING COIL
	L16	PU48530-101K	PEAKING COIL
	VL1	YU40786	COIL, DIF
	VL2	PU56934	COIL, B-Y SET
	VL3	YU40786	COIL, SECAM DET
	VL4	PU56934	COIL, R-Y SET
	BPF1	YU40782	BAND PASS FILTER
	BPF2	YU40782	BAND PASS FILTER
	CF1	PU49057	LC BLOCK
	DL1	YU40781	DELAY LINE
⚠	X1	YU40780	CRYSTAL RESONATOR
	HS1	YU40783	HEAT SINK
	SCW1	LPSP3008Z	ASSY SCREW
	CN1	PU58844-7	CAP HOUSING
	CN2	PU58844-11	CAP HOUSING
	CN3	PU58844-2	CAP HOUSING
	CN4	PU58844-2	CAP HOUSING
	CN7	YU40784	RGB CONNECTOR
	CN8	PU58844-3	CAP HOUSING

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****
* 4. POWER LED BOARD ASSY <02> *
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	PWBA	YB10026A2-01	POWER LED BOARD ASSY
⚠	D3	SLH-34VC3F	LE DIODE
	HD1	PQM30038-3	LED HOLDER

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#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
			********** 5. POWER TRANS BOARD ASSY <03> **********
⚠	PWBA	YB10026A3-01	POWER TRANS BOARD ASSY
	D1	KBP02ML	DIODE
	C1	QCF31HP-473	CAPACITOR
	C5	QCF31HP-473	CAPACITOR
	C6	QEU51EM-228	E CAPACITOR
⚠	FC1	PU57505	FUSE CLIP
⚠	FC2	PU57505	FUSE CLIP
⚠	TAB1	YU40522	LUG TERMINAL
⚠	TAB2	YU40522	LUG TERMINAL
⚠	TAB3	YU40522	LUG TERMINAL
⚠	TAB4	YU40522	LUG TERMINAL
⚠	CP1	ICP-F15	CIRCUIT PROTECTOR
⚠	F1	QMF51E2-R10	FUSE,NOT INCL P.T. BOARD A
			********** 6. MODE SELECT SW BOARD ASSY <04> **********
	PWBA	YB10026A4-01	MODE SELECT SW BOARD ASSY
	SW2	YU40872	SLIDE SWITCH

4.2 PARTS LIST (EG: #1001 – /EK: #201 –)

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
			**********
			* 3. MAIN BOARD ASSEMBLY <01> *
			**********
	PWBA	YB10026A1-02	MAIN BOARD ASSY
	IC1	M5236L	IC
	IC2	NJM2233AS	IC
	IC3	NJM2233AS	IC
	IC4	NJM2233AS	IC
	IC5	NJM2233AS	IC
	IC6	TDA4556	IC
	IC7	TDA4565	IC
	IC8	AN5613	IC
	IC9	TDA2594	IC
	IC10	BU4538B	IC
	IC11	TA7357P	IC
	IC12	UPC393C	IC
	IC13	BA7007	IC
	IC14	AN608P	IC
	Q 1	2SB1186	TRANSISTOR
	Q 2	2SC1741S	TRANSISTOR
	Q 3	2SC1740S(RS)	TRANSISTOR
	Q 4	2SA933S(RS)	TRANSISTOR
	Q 5	2SC1741S	TRANSISTOR
	Q 6	2SC1740S(RS)	TRANSISTOR
	Q 7	2SA933S(RS)	TRANSISTOR
	Q 8	2SC1741S	TRANSISTOR
	Q 9	2SC1740S(RS)	TRANSISTOR
	Q10	2SA933S(RS)	TRANSISTOR
	Q11	2SC1741S	TRANSISTOR
	Q12	2SC1740S(RS)	TRANSISTOR
	Q13	2SC1740S(RS)	TRANSISTOR
	Q14	2SC1740S(RS)	TRANSISTOR
	Q15	2SA854S	TRANSISTOR
	Q16	2SC933S(RS)	TRANSISTOR
	Q17	2SC1740S(RS)	TRANSISTOR
	Q18	2SC1740S(RS)	TRANSISTOR
	Q19	2SC1740S(RS)	TRANSISTOR
	Q20	2SC1740S(RS)	TRANSISTOR
	Q21	2SC1740S(RS)	TRANSISTOR
	Q22	2SC1740S(RS)	TRANSISTOR
	Q23	2SC1740S(RS)	TRANSISTOR
	Q24	2SC1740S(RS)	TRANSISTOR
	Q25	2SA933S(RS)	TRANSISTOR
	Q26	2SA933S(RS)	TRANSISTOR
	Q27	2SA933S(RS)	TRANSISTOR
	Q28	2SA933S(RS)	TRANSISTOR
	Q29	2SA933S(RS)	TRANSISTOR
	Q30	2SA933S(RS)	TRANSISTOR
	Q31	2SA933S(RS)	TRANSISTOR
	Q32	2SC1740S(RS)	TRANSISTOR
	Q33	2SA933S(RS)	TRANSISTOR
	Q34	2SA933S(RS)	TRANSISTOR
	Q35	2SC1740S(RS)	TRANSISTOR
	Q37	2SC1740S(RS)	TRANSISTOR
	D2	1SS133	DIODE
	D4	MTZ15A	ZENER DIODE
	D5	MTZ15A	ZENER DIODE
	D6	MTZ15A	ZENER DIODE
	D7	MTZ15A	ZENER DIODE
	D8	1SS133	DIODE
	D9	1SS133	DIODE

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R 1	QRD161J-221	RESISTOR
	R 2	QRD161J-333	RESISTOR
	R 3	QRD161J-392	RESISTOR
	R 4	QRD161J-750	RESISTOR
	R 5	QRD161J-563	RESISTOR
	R 6	QRD161J-103	RESISTOR
	R 7	QRD161J-222	RESISTOR
	R 8	QRD161J-563	RESISTOR
	R 9	QRD161J-273	RESISTOR
	R10	QRD161J-102	RESISTOR
	R11	QRD161J-101	RESISTOR
	R12	QRD161J-101	RESISTOR
	R13	QRD161J-151	RESISTOR
	R14	QRD161J-100	RESISTOR
	R15	QRD161J-472	RESISTOR
	R16	QRD161J-750	RESISTOR
	R17	QRD161J-750	RESISTOR
	R18	QRD161J-563	RESISTOR
	R19	QRD161J-103	RESISTOR
	R20	QRD161J-222	RESISTOR
	R21	QRD161J-563	RESISTOR
	R22	QRD161J-273	RESISTOR
	R23	QRD161J-102	RESISTOR
	R24	QRD161J-101	RESISTOR
	R25	QRD161J-101	RESISTOR
	R26	QRD161J-151	RESISTOR
	R27	QRD161J-100	RESISTOR
	R28	QRD161J-472	RESISTOR
	R29	QRD161J-750	RESISTOR
	R30	QRD161J-750	RESISTOR
	R31	QRD161J-183	RESISTOR
	R32	QRD161J-103	RESISTOR
	R33	QRD161J-222	RESISTOR
	R34	QRD161J-563	RESISTOR
	R35	QRD161J-273	RESISTOR
	R36	QRD161J-102	RESISTOR
	R37	QRD161J-101	RESISTOR
	R38	QRD161J-101	RESISTOR
	R39	QRD161J-151	RESISTOR
	R40	QRD161J-100	RESISTOR
	R41	QRD161J-472	RESISTOR
	R42	QRD161J-750	RESISTOR
	R43	QRD161J-750	RESISTOR
	R44	QRD161J-103	RESISTOR
	R45	QRD161J-563	RESISTOR
	R46	QRD161J-102	RESISTOR
	R47	QRD161J-102	RESISTOR
	R48	QRD161J-563	RESISTOR
	R49	QRD161J-103	RESISTOR
	R50	QRD161J-101	RESISTOR
	R51	QRD161J-271	RESISTOR
	R52	QRD161J-750	RESISTOR
	R53	QRD161J-103	RESISTOR
	R54	QRD161J-472	RESISTOR
	R55	QRD161J-104	RESISTOR
	R56	QRD161J-103	RESISTOR
	R57	QRD161J-103	RESISTOR
⚠	R58	YU40905-100	POSISTOR
	R59	QRD161J-222	RESISTOR
	R61	QRD161J-750	RESISTOR
	R62	QRD161J-332	RESISTOR
	R63	QRD161J-332	RESISTOR
	R64	QRD161J-562	RESISTOR
	R65	QRD161J-562	RESISTOR
	R66	QRD161J-103	RESISTOR
	R67	QRD161J-102	RESISTOR
	R68	QRD161J-222	RESISTOR
	R69	QRD161J-153	RESISTOR
	R70	QRD161J-393	RESISTOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R71	QRD161J-153	RESISTOR
	R72	QRD161J-393	RESISTOR
	R73	QRD161J-222	RESISTOR
	R74	QRD161J-122	RESISTOR
	R75	QRD161J-391	RESISTOR
	R76	QRD161J-681	RESISTOR
	R77	QRD161J-181	RESISTOR
	R78	QRD161J-122	RESISTOR
	R79	QRD161J-562	RESISTOR
	R80	QRD161J-103	RESISTOR
	R81	QRD161J-391	RESISTOR
	R82	QRD161J-471	RESISTOR
	R83	QRD161J-331	RESISTOR
	R84	QRD161J-102	RESISTOR
	R85	QRD161J-221	RESISTOR
	R86	QRD161J-222	RESISTOR
	R87	QRD161J-222	RESISTOR
	R88	QRD161J-102	RESISTOR
	R89	QRD161J-101	RESISTOR
	R90	QRD161J-101	RESISTOR
	R91	QRD161J-392	RESISTOR
	R92	QRD161J-122	RESISTOR
	R93	QRD161J-152	RESISTOR
	R94	QRD161J-222	RESISTOR
	R95	QRD161J-102	RESISTOR
	R96	QRD161J-222	RESISTOR
	R97	QRD161J-101	RESISTOR
	R98	QRD161J-101	RESISTOR
	R99	QRD161J-101	RESISTOR
	R100	QRD161J-681	RESISTOR
	R101	QRD161J-102	RESISTOR
	R102	QRD161J-681	RESISTOR
	R103	QRD161J-102	RESISTOR
	R104	QRD161J-681	RESISTOR
	R105	QRD161J-102	RESISTOR
	R106	QRD161J-104	RESISTOR
	R107	QRD161J-474	RESISTOR
	R108	QRD161J-822	RESISTOR
	R109	QRD161J-123	RESISTOR
	R110	QRD161J-185	RESISTOR
	R111	QRD161J-225	RESISTOR
	R112	QRD161J-333	RESISTOR
	R113	QRD161J-562	RESISTOR
	R114	QRD161J-104	RESISTOR
	R115	QRD161J-123	RESISTOR
	R116	QRD161J-124	RESISTOR
	R117	QRD161J-104	RESISTOR
	R118	QRD161J-223	RESISTOR
⚠	R119	YU40905-100	POSISTOR
⚠	R120	YU40905-100	POSISTOR
	R121	QRD161J-123	RESISTOR
	R122	QRD161J-123	RESISTOR
	R123	QRD161J-152	RESISTOR
	R124	QRD161J-152	RESISTOR
	R125	QRD161J-154	RESISTOR
	R126	QRD161J-273	RESISTOR
	R127	QRD161J-562	RESISTOR
	R128	QRD161J-682	RESISTOR
	R129	QRD161J-103	RESISTOR
	R130	QRD161J-562	RESISTOR
	R131	QRD161J-332	RESISTOR
	R132	QRD161J-222	RESISTOR
	R133	QRD161J-392	RESISTOR
	R134	QRD161J-821	RESISTOR
	R135	QRD161J-103	RESISTOR
	R136	QRD161J-223	RESISTOR
	R137	YU40905-330	POSISTOR
	R138	QRD161J-220	RESISTOR
	R139	QRD161J-151	RESISTOR
	R140	QRD161J-393	RESISTOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	R141	QRD161J-154	RESISTOR
	R142	QRD161J-222	RESISTOR
	R143	QRD161J-222	RESISTOR
	R144	QRD161J-222	RESISTOR
	R145	QRD161J-681	RESISTOR
	R147	QRD161J-183	RESISTOR
	R148	QRD161J-102	RESISTOR
	R149	QRD161J-183	RESISTOR
	R150	QRD161J-221	RESISTOR
	R151	QRD161J-102	RESISTOR
	R152	QRD161J-102	RESISTOR
	R153	QRD161J-101	RESISTOR
	R154	QRD183J-271	RESISTOR
	R155	QRD161J-823	RESISTOR
	R156	QRD161J-123	RESISTOR
	R157	QRD161J-392	RESISTOR
	R158	QRD161J-391	RESISTOR
	VR 1	QVZ3531-222	V RESISTOR, 12 V ADJ
	VR 2	QVZ3531-471	V RESISTOR, Y ADJ 1
	VR 3	QVZ3531-221	V RESISTOR, COL DIF
	VR 4	QVZ3531-222	V RESISTOR, Y ADJ 2
	VR 5	QVZ3531-471	V RESISTOR, Y PIC 1
	VR 6	QVZ3531-473	V RESISTOR, Y DL
	VR 7	QVZ3531-103	V RESISTOR, SUB BRT
	VR 8	QVZ3531-332	V RESISTOR, SUB CONT
	VR 9	QVZ3531-332	V RESISTOR, SUB COL
	VR10	QVZ3531-222	V RESISTOR, Y ADJ 3
	VR11	QVZ3531-473	V RESISTOR, FH
	VR12	QVZ3531-473	V RESISTOR, SCP MIX
	VR13	QVZ3531-683	V RESISTOR, V DST
	VR14	QVZ3531-104	V RESISTOR, V BLK WIDH
	VR15	QVZ3531-103	V RESISTOR, CP
	VR16	QVZ3531-103	V RESISTOR, C BLK
	VR101	YU40779	V RESISTOR
	VR102	YU40859	V.RESITOR
	VR103	YU40860	V RESISTOR
	C 8	QFN31HJ-224	M CAPACITOR
	C 9	QEU41CM-108	E CAPACITOR
	C10	QET61CM-106	E CAPACITOR
	C11	QET61CM-106	E CAPACITOR
	C12	QET61CM-106	E CAPACITOR
	C13	QET61CM-106	E CAPACITOR
	C14	QETC1CM-477	E CAPACITOR
	C15	QET61CM-106	E CAPACITOR
	C16	QET61CM-106	E CAPACITOR
	C17	QET61CM-106	E CAPACITOR
	C18	QET61CM-106	E CAPACITOR
	C19	QETC1CM-477	E CAPACITOR
	C20	QET61CM-106	E CAPACITOR
	C21	QET61CM-106	E CAPACITOR
	C22	QET61CM-106	E CAPACITOR
	C23	QET61CM-106	E CAPACITOR
	C24	QETC1CM-477	E CAPACITOR
	C25	QET61CM-476	E CAPACITOR
	C26	QET61CM-476	E CAPACITOR
	C27	QET61CM-476	E CAPACITOR
	C28	QET61CM-476	E CAPACITOR
	C29	QEN61CM-476	NP E CAPACITOR
	C30	QETC1CM-477	E CAPACITOR
	C31	QFN31HJ-102	CAPACITOR
	C32	QFN31HJ-102	CAPACITOR
	C33	QCBB1HJ-101	CAPACITOR
	C34	QCBB1HJ-221	CAPACITOR
	C35	QFN31HJ-223	M CAPACITOR
	C36	QFN31HJ-103	M CAPACITOR
	C37	QCT25RH-820	CAPACITOR
	C38	QCSB1HJ-680	CAPACITOR
	C39	QCSB1HJ-220	CAPACITOR
	C40	QCBB1HJ-181	CAPACITOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	C41	QCSB1HJ-220	CAPACITOR
	C42	QCSB1HJ-680	CAPACITOR
	C43	QCT25RH-820	CAPACITOR
	C44	QCBB1HJ-181	CAPACITOR
	C45	QFN31HJ-334	M CAPACITOR
	C46	QET61HM-225	E CAPACITOR
	C47	QFN31HJ-473	M CAPACITOR
	C48	QFN31HJ-223	M CAPACITOR
	C49	QFN31HJ-102	M CAPACITOR
	C50	QCBB1HJ-121	CAPACITOR
	C51	QEN61HM-105	NP E CAPACITOR
	C52	QEN61HM-105	NP E CAPACITOR
	C53	QCBB1HJ-101	CAPACITOR
	C54	QCBB1HJ-101	CAPACITOR
	C55	QCBB1HJ-331	CAPACITOR
	C56	QCBB1HJ-471	CAPACITOR
	C57	QEN61CM-106	NP E CAPACITOR
	C58	QEN61CM-106	NP E CAPACITOR
	C59	QCBB1HJ-471	CAPACITOR
	C60	QEN61CM-476	NP E CAPACITOR
	C61	QET61HM-105	E CAPACITOR
	C62	QFN31HJ-103	M CAPACITOR
	C63	QET61CM-106	E CAPACITOR
	C64	QET61CM-106	E CAPACITOR
	C65	QET61CM-106	E CAPACITOR
	C66	QEN61CM-106	NP E CAPACITOR
	C67	QET61CM-107	E CAPACITOR
	C68	QFN31HJ-104	M CAPACITOR
	C69	QCBB1HJ-561	CAPACITOR
	C70	QFN31HJ-473	M CAPACITOR
	C71	QCBB1HJ-561	CAPACITOR
	C72	QFN31HJ-474	M CAPACITOR
	C73	QFN31HJ-474	M CAPACITOR
	C74	QFN31HJ-682	M CAPACITOR
	C75	QFN31HJ-103	M CAPACITOR
	C76	QFN31HJ-472	M CAPACITOR
	C77	QFN31HJ-472	M CAPACITOR
	C78	QFN31HJ-472	M CAPACITOR
	C79	QET61CM-107	E CAPACITOR
	C80	QFN31HJ-224	M CAPACITOR
	C81	QFN31HJ-104	M CAPACITOR
	C82	QFN31HJ-223	M CAPACITOR
	C83	QCT25CH-101	CAPACITOR
	C84	QET61CM-107	E CAPACITOR
	C85	QET61CM-107	E CAPACITOR
	C86	QET61CM-107	E CAPACITOR
	C87	QET61CM-107	E CAPACITOR
	C91	QCBB1HJ-121	CAPACITOR
	C93	QFN31HJ-103	M CAPACITOR
	C94	QEN61HM-334	NP E CAPACITOR
	C95	QET61CM-107	E CAPACITOR
	C96	QFN31HJ-104	M CAPACITOR
	C97	QET61CM-107	E CAPACITOR
	C98	QFN31HJ-104	M CAPACITOR
	C99	QFN31HJ-104	M CAPACITOR
	C100	QET61CM-107	E CAPACITOR
	C101	QFN31HJ-104	M CAPACITOR
	C102	QET61CM-107	E CAPACITOR
	C103	QET61CM-107	E CAPACITOR
	C104	QFN31HJ-104	M CAPACITOR
	C105	QET61CM-107	E CAPACITOR
	C106	QFN31HJ-104	M CAPACITOR
	C107	QET61CM-107	E CAPACITOR
	C108	QFN31HJ-104	M CAPACITOR
	C109	QEK61CM-107	E CAPACITOR
	C110	QFN31HJ-104	M CAPACITOR

#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
	C111	QCBB1HJ-101	CAPACITOR
	C112	QFN31HJ-102	M CAPACITOR
	C113	QET61CM-107	E CAPACITOR
	C114	QET61CM-107	E CAPACITOR
	C115	QET61CM-106	E CAPACITOR
	C116	QFN31HJ-104	M CAPACITOR
	C117	QCBB1HJ-101	CAPACITOR
	C118	QET61CM-107	E CAPACITOR
	C119	QCC31EM-104	CAPACITOR
	C120	QCC31EM-104	CAPACITOR
	C121	QCC31EM-104	CAPACITOR
	C122	QCC31EM-104	CAPACITOR
	C123	QCC31EM-104	CAPACITOR
	C124	QCC31EM-104	CAPACITOR
	C126	QFN31HJ-102	CAPACITOR
	TC1	QAT3120-600	TRIMMER CAP, PAL DEL
	TC2	QAT3210-900	TRIMMER CAP, RGB PICT
	TC3	QAT3210-900	TRIMMER CAP, T PICT 2
	L 2	PU48530-100K	PEAKING COIL
	L 3	PU48530-560K	PEAKING COIL
	L 4	PU48530-101K	PEAKING COIL
	L 5	PU48530-101K	PEAKING COIL
	L 6	PU48530-101K	PEAKING COIL
	L 7	PU48530-101K	PEAKING COIL
	L 8	PU48530-101K	PEAKING COIL
	L 9	PU48530-101K	PEAKING COIL
	L10	PU48530-101K	PEAKING COIL
	L11	PU48530-101K	PEAKING COIL
	L12	PU48530-101K	PEAKING COIL
	L13	PU48530-101K	PEAKING COIL
	L15	PU48530-101K	PEAKING COIL
	L16	PU48530-101K	PEAKING COIL
	VL1	YU40786	COIL, DIF
	VL2	PU56934	COIL, B-Y SET
	VL3	YU40786	COIL, SECAM DET
	VL4	PU56934	COIL, R-Y SET
	BPF1	YU40782	BAND PASS FILTER
	BPF2	YU40782	BAND PASS FILTER
	CF1	PU49057	LC BLOCK
	DL1	YU40781	DELAY LINE
⚠	X1	YU40780	CRYSTAL RESONATOR
	HS1	YU40783	HEAT SINK
	SCW1	LPSP3008Z	ASSY SCREW
	CN1	PU58844-7	CAP HOUSING
	CN2	PU58844-11	CAP HOUSING
	CN3	PU58844-2	CAP HOUSING
	CN4	PU58844-2	CAP HOUSING
	CN7	YU40784	RGB CONNECTOR
	CN8	PU58844-3	CAP HOUSING

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* 4. POWER LED BOARD ASSY <02> *
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	PWBA	YB10026A2-02	POWER LED BOARD ASSY
⚠	D3	SLH-34VC3F	LE DIODE
	HD1	PQM30038-3	LED HOLDER

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#⚠	REF NO.	PART NO.	PART NAME, DESCRIPTION
			********** 5. POWER TRANS BOARD ASSY <03> **********
⚠	PWBA	YB10026A3-02	POWER TRANS BOARD ASSY
	D1	KBP02ML	DIODE
	C1	QCF31HP-473	CAPACITOR
	C5	QCF31HP-473	CAPACITOR
	C6	QEU51EM-228	E CAPACITOR
⚠	FC1	PU57505	FUSE CLIP
⚠	FC2	PU57505	FUSE CLIP
⚠	TAB1	YU40522	LUG TERMINAL
⚠	TAB2	YU40522	LUG TERMINAL
⚠	TAB3	YU40522	LUG TERMINAL
⚠	TAB4	YU40522	LUG TERMINAL
⚠	CP1	ICP-F15	CIRCUIT PROTECTOR
⚠	F1	QMF51E2-R10	FUSE,NOT INCL P.T. BOARD A
			********** 6. MODE SELECT SW BOARD ASSY <04> **********
	PWBA	YB10026A4-02	MODE SELECT SW BOARD ASSY
	SW2	YU40872	SLIDE SWITCH